



Societal role in curbing climate change



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ClimEd Series- III This instructional material “**Societal role in curbing climate change**” has been developed as a part of the Belmont funded project titled “Global Understanding and Learning for Local solutions: Reducing Vulnerability of marine dependent coastal communities” as a means to create awareness and impart climate change knowledge across the target populace.

Published by

Director
CMFRI

Published

September 2016

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Cover Citation

The cover page portrays the differential roles the society could play by engaging the community in creating climate awareness and imparting knowledge in developing village level adaptation and mitigation plan for a climate change informed fisher society.

Disclaimer

Acknowledgements are due to the creative intellects of illustrations / photographs included in the ClimEd series. They are being sourced as an informative tool to its target audience on an "as-is, as-available" basis for educational purposes only.

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Climate change:

Any significant long-term change in the expected patterns of average weather of a region across a considerable period of time

Global Warming: A Global Warning

An increase in earth's average atmospheric temperature that causes corresponding changes in climate due to the greenhouse effect such as carbon dioxide emissions from burning fossil fuels / deforestation.



The impending disaster:

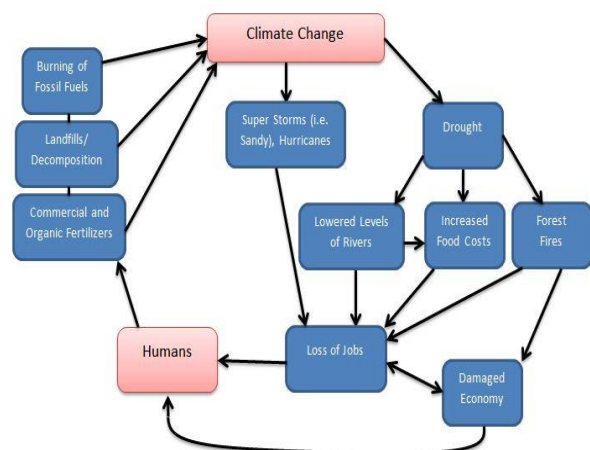
The earth's climate has been significantly changing on global and regional scales since the preindustrial era, with some owing to human activities. The changes observed in the regional climate have already affected many physio-biological systems, in turn having a negative effect on social and economic systems

Causes of Climate Change:

Factors that cause climate change include–

- Due to natural processes
- Due to human activity.

In addition to natural causes of climate change, changes internal to climate system, such as variations in ocean currents or atmospheric circulation, also influence climate.



Changes in our society due to climate change:



Climate change is expected to affect virtually every sector of society, including water resources, food production, energy use, transportation and commerce, recreation, and even national security. While some effects are beneficial, particularly in the short term, many impacts could be costly, far-reaching, and damaging local communities and society as a whole in the long term.

Water resources:

- Increase in water temperature, shifts in precipitation patterns and snow cover
- Rising temperature increases evaporation causing high precipitations leading to rainfall variations
- Frequent floods and severe storms could compromise the quality of water supplies by washing chemicals and other contaminants into lakes, rivers etc.



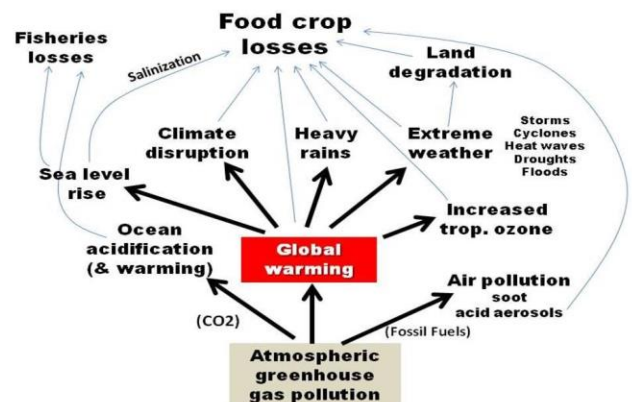
pests and diseases, atmospheric carbon dioxide and ozone concentration.

- Livestock is at risk, both directly from heat stress and indirectly from reduced quality of their food supply.
- Changes in water temperature affects the fishery in a very bad manner leads to species extinction.

Currently, 1.6 billion people live in countries and regions with absolute water scarcity and the number is expected to rise to 2.8 billion people by 2025 due

Food Production:

- Reduced crop production due to changes in average temperatures, rainfall,



Energy use and supply:

- Affects the amount of water available to produce electricity or extract fuel. Competition for water between energy production and other uses could increase in water scarcity areas.



- Sea level rise and more frequent intense storms could disrupt energy production and delivery by damaging electricity infrastructure, fuel infrastructure and equipment, power plants, or storage facilities.

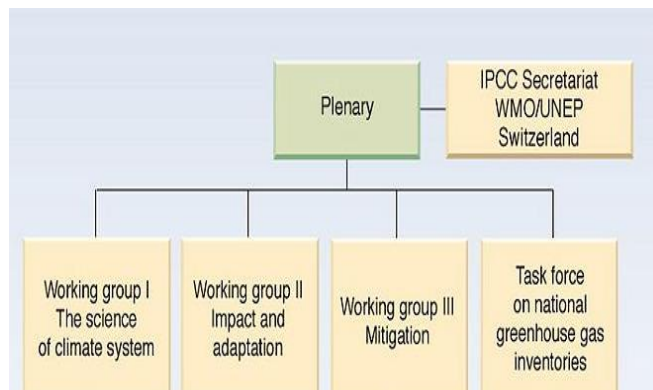
Other Effects:

- Heat waves, decreased snowfall, and changing wildlife habitats adversely affect some types of sporting and outdoor activities, including hunting, fishing, skiing, camping, and tourism.
- Extreme weather events, food and waste shortages lead to social disruption, instability, and conflict in the society.



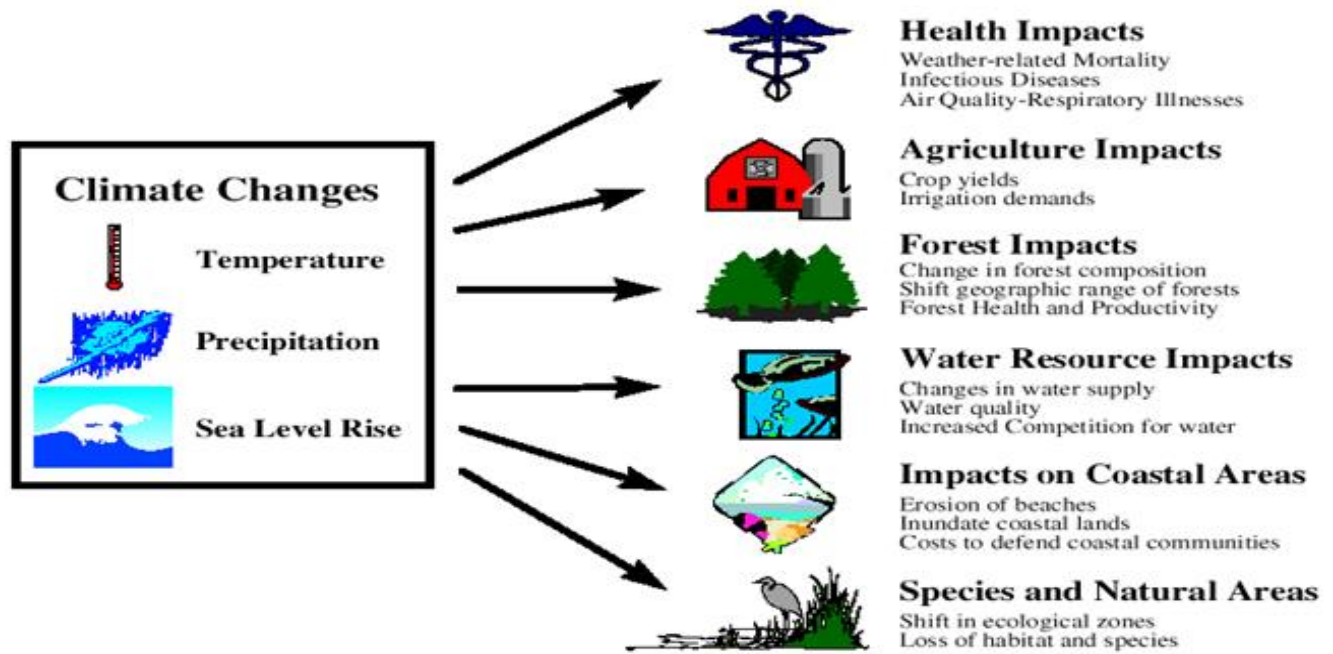
Assessing Climate change:

The Intergovernmental Panel on Climate Change (IPCC) was established by the United Nations Environmental Programme (UNEP) and the World Meteorological Organization aims to assess the state of knowledge on the various aspects of climate change including science, environmental and socio-economic impacts and response strategies.



Impacts of Climate Change on Society

Climate change affects our society through impacts on a number of different social, cultural, and natural resources. The impacts will be most on people who live in areas that are vulnerable to coastal storms drought and sea level rise or people who live in poverty, older adults, and immigrant communities. Similarly, livelihoods and activities that are closely linked to weather and climate such as agriculture, mining, forestry, commerce, outdoor tourism etc, and will face considerable challenges from climate change.

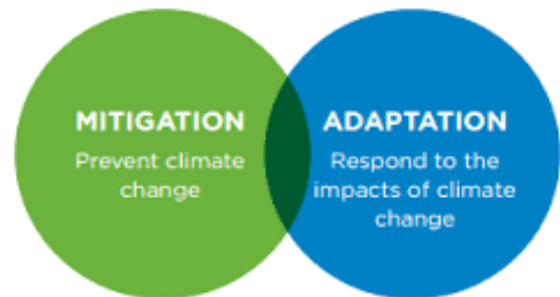


What can we do on climate change?????

The major thing that can be done about climate change is to support education efforts that help individuals and societies make informed decisions about climate change. Climate science must be integrated as practical knowledge into society so that understanding the complex physical and biological interconnections are relevant to decision-making in social, economic, political, cultural, and educational systems.

The two most important strategies for addressing climate change:

- Mitigation- the globally responsible thing to do by limiting the amount of climate change which occurs, primarily by reducing greenhouse gas concentrations.
- Adaptation – the locally responsible thing to do by changing the way as a society live in response to the changing climate



Measures for reducing the drivers of climate change:



- **Put a price on carbon**

Carbon pricing systems such as emissions trading systems that cap emissions of carbon taxes that charge per ton send a long-term signal to companies by creating an incentive to reduce polluting behaviours and to invest in cleaner energy choices and low-carbon innovation.

- **End fossil fuel subsidies**

Fossil fuel subsidies send a different signal – one that can encourage waste and discourage low-carbon growth. By phasing out harmful fossil fuel subsidies, countries can reallocate their spending to where it is most needed and most effective, including providing targeted support for the poor.

- **Build low-carbon, resilient cities**

With careful planning of transportation and land use, and the establishment of energy efficiency standards, cities can build in ways that avoid locking in unsustainable patterns. They can open access to jobs and opportunity for the poor and reduce damaging air pollution.

- **Increase energy efficiency and use of renewable energy**

About 1.2 billion people lack access to electricity and 2.8 billion rely on solid fuels for cooking, such as wood, charcoal, and coal, which cause harmful indoor air pollution.



- **Implement climate-smart agriculture and nurture forest landscapes**

Climate-smart agriculture techniques help farmers increase their farms' productivity and resilience to the impacts of climate change, such as droughts, while also creating carbon sinks that help reduce net emissions. Forests, too, are valuable carbon sinks that absorb carbon and store it in soils, trees, and foliage.

A warming earth disturbs weather, people, animals, society and much more.....

Coping with climate change in society:

Whatever the causes of climate change, not taking action to tackle it is the wrong thing to do; the impacts of climate change will only get worse. Hence it is important that we need to adapt to the changes we are already experiencing and work to reduce the activities that are contributing to the cause of climate change in society.

Steps to be taken in society for preventing climate change

1. Develop climate change action groups.

- Develop working groups to educate climate knowledge and preventive measures for climate change among the people.
- Conduct discussions, debates and seminars related to climate change measures.
- Develop a new group from the working groups called "Knowledge brokers" to spread climate change knowledge and preventive measures in the society.



2. Engage children and young people to take action on climate change

- Motivate and make them aware that they can be the best facilitators for preventing climate change.
 - Get them involved in recycling and other green initiatives, rewarding them for their good work.
- Educate them to understand the issues caused by climate change.

3. Develop Women self help groups for climate change

- Develop area specific action plans for climate change through SHG's.
- Collaborate on related projects across other community groups and statutory organisations to build resilience for climate change.
- Make SHG's to drive climate adaptation activities, particularly focusing on vulnerable areas where they can be creative and innovative messengers.
- Provide subsidies and emoluments to SHG's for their best action plans against climate change

4. Providing alternative livelihoods

- Combine local expectations and knowledge with external expertise to improve alternate livelihood options.
- Access, utilize and optimize climate adaptation solutions that emerge from research and case study activities to provide better livelihood options.

5. Enhance social forestry programmes

- Afforest the forest areas that have been degraded over the years due to human activities.
- Initiate programmes like "plant a tree challenge" to invoke a sense among people to come and participate and take every occasion to plant a



tree as their own responsibility.

- Conduct training programmes and awareness programmes for raising plantations by the common man so as to meet the growing demand for timber, fuel wood, fodder, etc.
- Create village forests by involving society participation, as part of a drive towards afforestation , and rehabilitating the degraded forest and common lands.

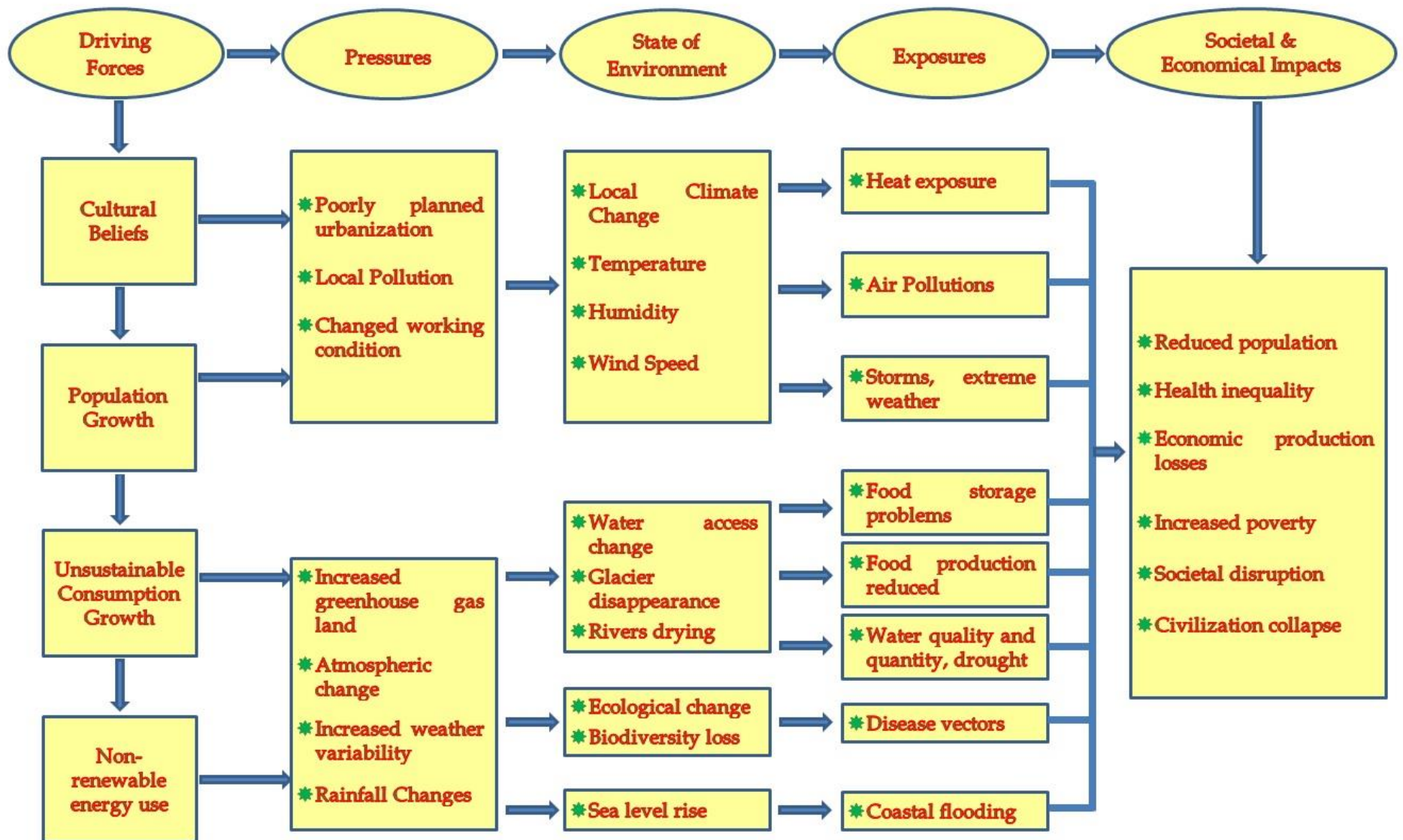
6. Reduce, Reuse and Recycle



- Compost your food and yard waste reduces the amount of garbage that you send to landfills and reduces greenhouse gas emissions
- Make recycling part of your daily routine by recycling all packaging and consumer goods and aim to purchase items with minimal and recyclable packaging
- Make people aware of the need of the recycling options for preventing climate change through group discussions and short meeting.

Once you've implemented these friendly measures discussed you may be amazed how much of a difference a few changes can make — and you'll be proud that you're doing your part to prevent climate change!

Remember we have only one earth; don't let it burst one day



The Climate change cycle and the entangled Society